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Attorney Docket No. 37167-8040.US00

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Johnson *et al.*

SERIAL NO.: 09/916,214

FILED: July 25, 2001

FOR: **APPARATUS FOR DETECTING AND TREATING TUMORS  
USING LOCALIZED IMPEDANCE MEASUREMENT**

EXAMINER: Unknown

ART UNIT: 3761

CONFIRMATION NO.: 6833

*L. Park*  
*5-26-03*  
*#15 Pre*  
*Andt A*

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**RECEIVED**  
OCT 18 2002  
OFFICE OF PETITIONS

Sir:

Prior to examination and calculation of the filing fee of the above-referenced application, please amend the application as follows.

In the claims:

Please cancel claims 1-37, without prejudice.

Please add new claims 38-67 as follows:

*sub 89* 38. (New) An apparatus for impedance characterization and ablative treatment of tumors, the apparatus comprising:

*a* an elongated delivery device including a lumen, the elongated delivery device being maneuverable in tissue; and

an impedance array comprising a plurality of resilient members being positionable in the elongated delivery device in a compacted state and deployable with curvature into tissue from the elongated delivery device in a deployed state and defining a sample volume in the deployed state, at least one of the plurality of resilient members including a sensor for determining impedance, at least some of said resilient members being electrodes which can be coupled to an energy source for ablating tissue when electrical energy is supplied to the electrodes from the source, and wherein at least a portion of the resilient members are configured to sample tissue impedance.

39. (New) The apparatus according to claim 38, wherein said impedance characterization is vector impedance characterization and at least a portion of the